

PCT/KR2004/000684
RO/KR 21.05.2004

Abstract

A strontium silicate-based phosphor, a fabrication method thereof, and an LED using the strontium silicate-based phosphor are provided. The phosphor is applied to a long wavelength ultraviolet LED, an active luminous LCD, etc., to enable an improvement in the color purity and to enhance the luminous efficiency. The strontium silicate-based phosphor is expressed by a chemical formula: $Sr_{3-x}SiO_5:Eu^{2+}x$ wherein x is $0 < x \leq 1$. The LED using the phosphor has a wide wavelength spectrum, shows a superior color purity characteristic, and can have a very high luminous efficiency as applied in the backlight source of an LED panel or an active luminous LCD.